



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/796,437	03/09/2004	Jung-hun Seo	5649-1265	1822
7590	02/15/2007		EXAMINER	
D. Scott Moore Myers Bigel Sibley & Sajovec Post Office Box 37428 Raleigh, NC 27627			NOVACEK, CHRISTY L	
		ART UNIT	PAPER NUMBER	
			2822	
		MAIL DATE	DELIVERY MODE	
		02/15/2007	PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

Application Number	Application/Control No.	Applicant(s)/Patent under Reexamination
	10/796,437	SEO ET AL. Art Unit 2891
B. William Baumeister		
Document Code - AP.PRE.DEC		

Notice of Panel Decision from Pre-Appeal Brief Review



This is in response to the Pre-Appeal Brief Request for Review filed 1/11/07.

1. **Improper Request** – The Request is improper and a conference will not be held for the following reason(s):

- The Notice of Appeal has not been filed concurrent with the Pre-Appeal Brief Request.
- The request does not include reasons why a review is appropriate.
- A proposed amendment is included with the Pre-Appeal Brief request.
- Other:

The time period for filing a response continues to run from the receipt date of the Notice of Appeal or from the mail date of the last Office communication, if no Notice of Appeal has been received.

2. **Proceed to Board of Patent Appeals and Interferences** – A Pre-Appeal Brief conference has been held. The application remains under appeal because there is at least one actual issue for appeal. Applicant is required to submit an appeal brief in accordance with 37 CFR 41.37. The time period for filing an appeal brief will be reset to be one month from mailing this decision, or the balance of the two-month time period running from the receipt of the notice of appeal, whichever is greater. Further, the time period for filing of the appeal brief is extendible under 37 CFR 1.136 based upon the mail date of this decision or the receipt date of the notice of appeal, as applicable.

- The panel has determined the status of the claim(s) is as follows:

Claim(s) allowed: _____.

Claim(s) objected to: _____.

Claim(s) rejected: 1-38.

Claim(s) withdrawn from consideration: _____.

3. **Allowable application** – A conference has been held. The rejection is withdrawn and a Notice of Allowance will be mailed. Prosecution on the merits remains closed. No further action is required by applicant at this time.

4. **Reopen Prosecution** – A conference has been held. The rejection is withdrawn and a new Office action will be mailed. No further action is required by applicant at this time.

All participants:

(1) B. William Baumeister. 

(3) Christy Novacek. 

(2) Tom Thomas. 

(4) _____.

* See attachment

Response to Arguments

Regarding the rejection of claims 1 and 24, Applicant argues that “flushing”, as recited in claims 1 and 24, requires cleaning. For the sake of argument, assuming that “flushing” requires cleaning, the Saitoh reference still meets the limitation because, by subjecting the barrier layer 17b1 to the TiCl₄ gas, the barrier will inherently be cleaned. Barrier 17b1 is made of the same material as Applicant’s barrier (TiN) (col. 20, ln. 20-21). Barrier 17b1 is deposited by MOCVD using a carbon-containing precursor, as is Applicant’s barrier (col. 20, ln. 11-12). Thus, the barrier 17b1 would inherently contain the same carbon impurities that Applicant’s barrier contains. The barrier 17b1 is also subjected to a gas of TiCl₄ at a temperature of 250-700°C, as is Applicant’s barrier (col. 21, ln. 34-63). Therefore, it appears that the “flushing” process of Saitoh would inherently possess the function of cleaning the barrier 17b1. See *In re Swinehart*, 439 F.2d 210, 212-13, 169 USPQ 226, 229 (CCPA 1971) “where the Patent Office has reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristics relied on ”); and *In re Fitzgerald*, 619 F.2d 67, 205 USPQ 594 (CCPA 1980) (a case indicating that the burden of proof can be shifted to the applicant to show that the subject matter of the prior art does not possess the characteristic relied on whether the rejection is based on inherency under 35 U.S.C. 102 or obviousness under 35 U.S.C. 103).